

## CHAPTER 12 QUALITY ASSURANCE/QUALITY CONTROL

### 12-1. Introduction.

a. This chapter discusses project team requirements for quality control (QC) and quality assurance (QA) during OE projects. QA/QC requirements for various phases of an OE response project (e.g., geophysical, location surveying, safety, and techniques) are discussed in their respective chapters in this manual.

b. General QA/QC requirements for USACE projects are described in ER 1110-1-12, Quality Management. Attachment 12-1 is a checklist that highlights the general QA/QC requirements.

12-2. Performance Objectives. The performance objectives for QA/QC activities on OE response projects include:

- a. Clear definition of customer needs and appropriate quality measures;
- b. Preventive action and controls to avoid customer dissatisfaction;
- c. Optimizing quality related costs for the required performance and grade of services; and
- d. Continuous review of product and service requirements and achievements to identify opportunities for product and service quality improvement.

12-3. Project Management. The PM should manage the project in accordance with a Project Management Plan. The Design Center POC is responsible for assisting the PM in the preparation of a Project Management Plan, if requested.

12-4. OE Assistance Visits. The OE MCX Safety and Quality Assurance Team schedules OE Assistance Visits on randomly chosen projects once per quarter, as requested by project teams, and at any other time based on areas needing improvement as identified by employees, customers, nonconforming products, and lessons learned. The project team may request an OE Assistance Visit through the Design Center POC or Design Center Manager. Appropriate coordination with Major Subordinate Commands (MSC) and districts will be made prior to OE Assistance Visits.

- a. Objective. OE Assistance Visits are conducted to:

(1) Ensure that QA oversight is being conducted by the OE Safety Specialist in accordance with accepted procedures and project Work Plans;

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(2) Ensure contractor compliance with the QC Plan; and

(3) Ensure that the Administrative Record has been established and maintained appropriately.

b. OE Assistance Visit Findings. At the conclusion of the OE Assistance Visit, findings should be presented to the PM in a letter report. A provisional agreement should be made regarding the response due date for each Corrective Action Report generated (generally 15 working days although shorter or longer periods may be warranted).

12-5. Lessons Learned Program. As required by ER 1110-1-12, a Lessons Learned Program should be developed by each Design Center to provide for the exchange of information regarding problems that may occur during the OE response process.

a. Objective. The objective of the Lessons Learned Program is to capture and share past experiences or recognized potential problems or better business practices to:

- (1) Prevent the recurrence of repetitive design/execution deficiency;
- (2) Clarify interpretation of regulations or standards;
- (3) Reduce the potential for mistakes in high risk/probability areas of concern;
- (4) Pass on information specific to an installation or project;
- (5) Promote a good work practice that should be ingrained for repeat application; and
- (6) To promote efficient and cost effective business practices.

b. Project Team Responsibilities. The project team is responsible for identifying and submitting lessons learned for review and approval. Throughout each project, project team members should consider how their experiences might be appropriate for the Lessons Learned Program.

c. Lessons Learned Submittals. Lessons learned submittals should be provided to the OE MCX on a periodic basis.

12-6. Contractor Quality Control Plan. The project team should require contractors to include a QC Plan as a chapter in the Work Plan. Attachment 12-1 provides a checklist for the project team to use when reviewing the contractor's QC Plan.

a. Objective. The objective of the QC Plan is to document the approach and procedures to be used to ensure quality throughout the execution of a project. The contractor is solely responsible for the control of product quality and for offering to the government only

products/services that conform to the contractual requirements. All QC records and documentation should be maintained on-site and be made available for government inspection upon request. All QC documentation should be submitted as part of or as supporting documentation for the final report.

b. Contents. The project team should ensure that the contractor's QC Plan documents all processes affecting quality, including the following items:

- (1) Audit procedures including pass/fail criteria and records generated;
- (2) Corrective/preventive action procedures;
- (3) Data management;
- (4) Anomaly acquisition and reacquisition;
- (5) Field operations;
- (6) Calibration/maintenance requirements;
- (7) Documentation and submittal of lessons learned;
- (8) Procedures for reviewing and processing contract submittals to ensure they meet contractual requirements;
- (9) Procedures for making changes to existing documents and communicating such changes to the appropriate personnel;
- (10) Training plan for all on-site personnel to ensure each employee meets qualification requirements as defined in the contract and to address all site-specific and routine training requirements for contractor personnel and site visitors; and
- (11) If applicable, a Chemical Data Quality Management Plan.

c. Quality Control Specialist. The project team should ensure that the contractor has appointed a UXO Quality Control Specialist (UXOQCS) to enforce the contractor's QC Plan and to perform quality conformance inspections (QCI). The UXOQCS will have sufficient, well-defined responsibilities, to include stop-work-authority and the organizational freedom to identify and evaluate quality problems; to initiate, recommend or provide solutions; and to approve corrective actions to ensure all work complies with stipulated contractual requirements. The qualifications for the UXOQCS will be described in the .

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ATTACHMENT 12-1  
QUALITY CONTROL PLAN REVIEW CHECKLIST

Project Name: \_\_\_\_\_  
Project Location: \_\_\_\_\_  
Design Center POC: \_\_\_\_\_  
Reviewer's Name and Title: \_\_\_\_\_  
Date of Review: \_\_\_\_\_

	Y	N	N/A
<b><u>Review of Contractor Quality Control Plan.</u></b> The project team should ensure that the Quality Control Plan, a chapter within the Work Plan, has been prepared in accordance with the SOW and contract specifications. Does the Quality Control Plan document all procedures affecting quality, including the following items:			
• Audit procedures?	_____	_____	_____
• Corrective/preventive action procedures?	_____	_____	_____
• Data management?	_____	_____	_____
• Anomaly acquisition and reacquisition?	_____	_____	_____
• Field operations?	_____	_____	_____
• Equipment calibration/maintenance requirements (geophysical instruments, radios/cell phones, vehicles/machinery, air monitoring equipment and personal protective equipment etc.)?	_____	_____	_____
• Pass/fail criteria for all quality audits and records generated (daily logs, meeting minutes, inventory forms, inspection forms etc.)?	_____	_____	_____
• How lessons learned will be captured, documented and submitted to the government?	_____	_____	_____

	Y	N	N/A
• Procedures used to ensure contract submittals (reports, work plans, etc.) are reviewed/processed in accordance with contractual requirements?	_____	_____	_____
• How changes to existing documents will be processed and communicated to appropriate personnel?	_____	_____	_____
• Process/training plan for all on-site personnel that ensures each employee meets the qualifications requirements (education, training, and/or experience), as defined for this contract to perform the duties of the job for which they were hired?	_____	_____	_____
• Site-specific and routine training requirements for contractor personnel and site visitors?	_____	_____	_____
• Statement that all QC documentation will be submitted as part of or as supporting documentation for the final report?	_____	_____	_____
• Statement that all QC records and documentation will be kept on site and made available for government inspection upon request?	_____	_____	_____